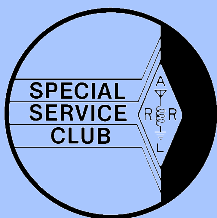




The Raleigh Amateur Radio Society's **EXCITER**

GET INVOLVED

- RARS General Membership meeting: Second Tuesday of the month.
- The RARS net meets every night except Saturday @ 8 p.m. on 146.640.
- The RARS Technical & Trader's net: Saturdays @ 8:00 PM on 146.64.
- ~~RARS meets for a monthly dinner on the First Tuesday of each month.~~



PUBLIC SERVICE EVENTS

Interested in helping? Visit <https://www.rars.org/public-service.php>

frequently for our 2021 ham public service schedule.

RARS General Meeting

Main Topic: Currently available handheld transceivers

Presenter: Steve Molo, KI4KWR, GigaParts Brand Manager

Date: January 12, 2021

Time: Meeting at 7:30 PM, informal gathering at 7PM on Zoom.

Where: Zoom

Presidents Message

Happy New Year to all RARS members and their families. I hope we'll soon be able to gather in person again. There are still many ways to connect with others in the amateur radio hobby.

I seldom make New Year's resolutions. A few years ago, I resolved to learn to text with my thumbs as I've seen many younger people do. I actually kept that resolution, but there aren't many others that I've made and kept. This year, I'm resolving to do two things related to amateur radio.

The first and most important is to get my antennas out of my attic and higher up in the air. They are where they are now because it was the

[Continued on page 4](#)

RARS Officers

PRESIDENT

John Honeycutt
N8ZU
919.417.2477
jfh49@bellsouth.net

VICE PRESIDENT

Tom Lewis
N4TL
N4TL2@yahoo.com

SECRETARY

Mark Kilmer
KM4JRH
919.676.0110
mark.kilmer@gmail.com

TREASURER

Greg Seamster
KE4PAX
919.859.0029
KE4PAX@arrl.net



The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the amateur radio community in the greater Triangle area. In 1999, the society incorporated a new RARS and obtained 501(c)(3) non-profit tax status.

The objectives of the club are to promote worldwide friendship through amateur radio; to be of public service by providing radio communications in times of disaster, emergency, or civic needs; to educate members in radio technique, and to provide training classes to assist in obtaining amateur radio licenses.

Anyone interested in amateur radio is eligible to apply for membership. Dues for regular licensed amateurs are \$18 per year (from July 1 through June 30). Additional immediate family members pay \$5 each per year. Dues for licensed amateurs older than 59 or younger than 16 are \$12 per year. Dues for non-licensed associate members are \$9 per year. Applications for membership may be obtained from the treasurer or on the RARS website.

<https://www.rars.org>

Exciter

The Exciter is the official newsletter of the Raleigh Amateur Radio Society. It appears each month as a PDF on the RARS website at www.rars.org. Members receive email notification when the latest version is available. Please provide your email address to the Treasurer.

The Exciter welcomes articles, advertisements, and other contributions. To submit a piece to the newsletter, please contact the Editor. The Editor reserves the right to edit any and all pieces. The submission deadline for each month's Exciter is the Saturday that is ten days before the general meeting. All submissions must be final. Drafts are not accepted.

The views expressed in the Exciter are those of the individual authors and do not necessarily reflect the views of the Editor or RARS.

Tom Lewis, N4TL, editor (editor@rars.org)

For Your Information

RARS General Meeting

Date: Second Tuesday of each month

Location: Ridge Road Baptist Church 2014
Ridge Road Raleigh, NC, 27607

Time: People begin arriving at 7 p.m. The
meeting officially begins at 7:30 p.m.

RARS Monthly Dinner

All members and guests are welcome to
the monthly (first Tuesday) RARS Supper,
6:30PM, at the IHOP Restaurant, 7471 Six
Forks road, 27615. Its on the corner of Six
Forks road and Sawmill Road, 6:30 PM to
8PM They have a room for us that is to the left
when you enter the restaurant. Informal and
Dutch, just bring your appetite and best rag to
chew.

RARS Repeaters in Raleigh

145.130, 146.640 and 444.525

Join us for the nightly RARS net at 8 p.m.
on the 146.640 repeater. All hams holding a
Technician class license or higher are invited
to check in. We welcome both RARS and non-
RARS members to the net.

There is a net Listing on the RARS web-
site click here. <https://www.rars.org/nets.php>

VE Testing

The RARS VEs will accept walk in testing in
February, May, August and November at
5:30PM, prior to RARS membership meetings
at Ridge Road Baptist Church; the RARSfest
in April; the Cary Swapfest in July; the JARS-
Fest in November; and following RARS license
classes. Please bring a photo ID, your origi-
nal and a copy of your current license, your
\$14 exam fee, and any valid CSCEs that prove
passing elements beyond that of your current
license. Visit <https://www.rars.org> for more in-
formation.

RARS Net Monthly Summary

For December 2020

Checkins: 662

Minutes: 1507

Sessions: 31

Julie Royster KT4JR

RARS net manager

Video Footage of the Collapse of the Massive Arecibo Telescope antenna.

Actual footage of the Arecibo telescope anten-
na and catwalk collapse. The workers at the
site were inspecting the top of one of the
towers with a drone when the cables broke.
They recorded real time video of the collapse.

<https://youtu.be/59WQIRvezzi>

North Carolina QSO party

February 28, 2021, 10 AM to 8PM

<http://ncqsoparty.org/>

Presidents Message continued

quickest way for me to get on the HF bands, but their performance is less than optimal. I have some ideas about things I can do without too much expense to get them up higher. So that's resolution #1.

My other resolution is to learn Morse code well enough to make a few QSOs before next January. I started this once before, but got busy with other things before I'd made much progress. This year I've actually started working this resolution. Let's see how far I get.

I could also resolve to make a start on digital modes, learn about D-STAR, put a mobile rig in my car, or one of many other aspects of our wonderful hobby, but I think two are enough for one year. How about you? Have you made any resolutions to improve your ham operating experience?

I was looking forward to Kids Day on January 2nd. I always enjoy spending a few hours making QSOs with young people. In the past, I've always found some kids to put in the log and exchange favorite colors with, but this year I was disappointed. I had fun talking with Parks on the Air operators and made other contacts across the U.S. and Canada, but not with kids. Maybe you were on the air with your kids, grand-kids, nieces, nephews, or neighbors, but if you were, I missed you.

In November, RARS awarded a Special Lifetime Membership to long time member Jeff Wittich. Jeff has served RARS in many ways over the years. Last month Jeff had surgery for brain cancer. I'm glad to say he is recovering, so please keep Jeff in your hearts and prayers.

John Honeycutt, N8ZU

Hammarlund

Here is an interesting story about Hammarlund in the Asheville newspaper website. It originally ran in the newspaper for Marshall in Madison County.

<https://www.citizen-times.com/story/news/madison/2020/12/09/hammarlund-mars-hill-industry-leader-generations/6507182002/>

The former Hammarlund building in Mars Hill still stands. I had an HQ-110 when I was a Novice.

73 Chuck, K4RGN

December 8, 2020 RARS meeting

The meeting was held on Zoom, like we have been since the covid-19 pandemic started. Many members connected from 7PM on. President John Honeycutt, N8ZU, ran the formal part of the meeting. See the meeting minutes on [page 21](#) for details. After the formal part of the meeting. Tom, N4TL, introduced Bob Heil, K9EID. Bob spoke about Heil sound and some of his experiences.



Bob Heil, K9EID, Screen capture during the meeting

Bob demonstrated muffled audio that is hard to understand. He made adjustments and it sounded much better. He turned down the low frequency and boosted the 2KHz. Bob explains all of it on his website. Your audio settings will be one way for talking to buddies on 75 meters. They will be set different for DXing. For DXing roll off some low frequency. go to <https://heilhamradio.com> and look for support DSP settings. He has information for the major manufacturers .

*During the Zoom meetings **please keep your microphone muted.** During Bob's presentation someone was talking in the background. It seems to happen at each of our meetings.*

December 8, 2020 RARS meeting, continued

Bob Heil, K9EID, presentation



Voicing and tuning 6,000 pipes

taught me how to **mentally** listen, not just hear, but **LISTEN**
Harmonics, harmonics, harmonics

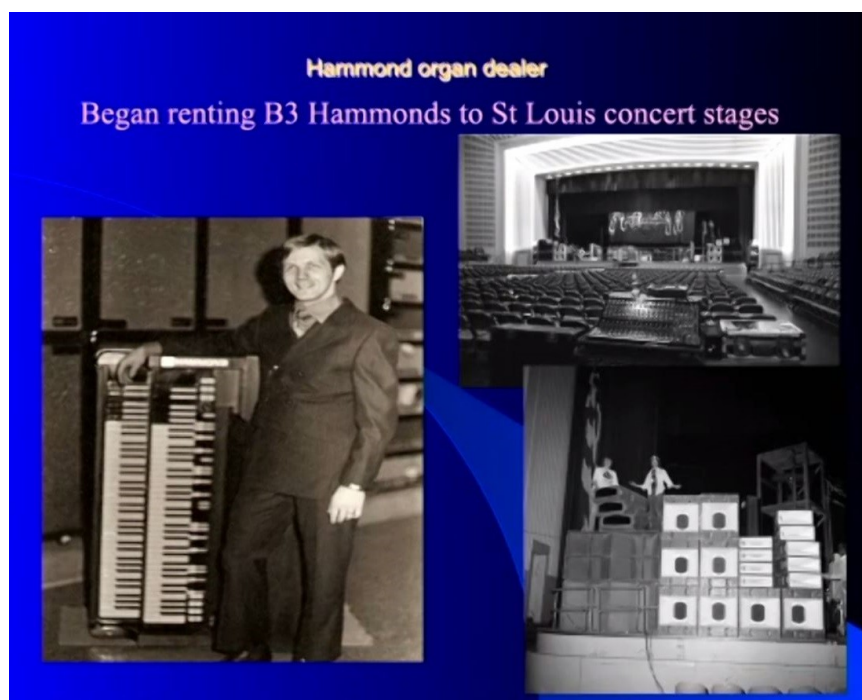


Basis for two of my careers

Screen captures during the Zoom meeting

December 8, 2020 RARS meeting, continued

Bob Heil, K9EID, presentation



Screen captures during the Zoom meeting

December 8, 2020 RARS meeting, continued

Bob Heil, K9EID, presentation











































































WB6ACU meets K9EID !
And the TALK BOX was born



Screen captures during the Zoom meeting

December 8, 2020 RARS meeting, continued

72 Participants

 Tom Lewis N4TL (Me)	 Chuck, K4HF	 Jim KM4WRK	 Mike K4MBX
 KM4JRH - Mark (Host)	 Charlie WA4OSS	 John Izzo - KO4HLP	 Mike KN4DRN
 Bob Heil (Co-host)	 Chris K4CKB	 Julie Royster	 NC1X Bob
 John Honeycutt - N8ZU	 Cliff KA7NSU	 K4BYN Louis	 Ralph WB4EJJ
 Bill Wade KO4GQL	 Curt W4CP	 K4YXM Robert Chew	 Rich Hall - K7RLH
 AJ4YA Grady	 Dana KO4JYN	 Ken AD4GX	 Richard N1FUA
 Al Sutton-N4EII	 Dave Fosdick	 Ken KN4GUS	 Rick Kd4jrx
 Alan AB4OZ	 Dave W4EIP	 KN4VTT Matthew Jones	 roger k4klk
 Barry NC4AZ	 dennis wz0q	 Lee - WB4DRJ	 Ron - KD4LOE
 Bob K4RLC	 Denny KO4IBL	 Lenovo TAB 10	 Ryan - N7RYN
 Bob W4GIA	 Dick KD4ISC	 Linda KI4LO & Al WA4TCJ	 Sam KA4APE
 Bob. N4GEB	 Doug AD4UL	 Mary Holtschneider	 SeanT
 Brantley K4CBW	 Doug N3LTV		 Stephen KO4GOG
 Brian - Ko4HaR	 Eric - NR4O		 Tadd (KA2DEW) Torborg
 Brian Young - KA9QJT	 Ernie Bauer - N1AEW		 Tom - K2UCU
 Caren Merz	 Greg KE4PAX		 Tom, NC4TS
 Carl Davis	 Hank K4HM		 Tyler KO4BZA
 Carl KJ4WD	 Hugh Cashion - KD4WJD		 Wade KK4UGY
 Charlie WA4OSS	 Jay KM4EP		 WO8H - Ben Huey
 Chris K4CKB	 Jerry KE4TTS		 Larry & Kathy

RARS meeting Participants, copied from Zoom during the meeting

After the December 8, 2020 RARS meeting

So, after Bob's presentation, I had to build an audio rack for the shack as well. It just never seems to end. Hope I can get my 2K and articulation now. hihi.

Mark Kilmer, KM4JRH



Future RARS Meeting Topics

Titles, topics, and speakers subject to change.

	2021 RARS Presentations schedule https://www.rars.org/	
Date	Topic	Presenter
1/12/2021	Currently available hand held transceivers	Steve Molo, KI4KWR, GigaParts Brand Manager
2/9/2021	Homebrew building a transistor single conversion superhet receiver.	Alan Victor, W4AMV
3/9/2021	Awards, RARS Birthday & Bletchley Park presentation - History of the WWII Allied Code Breaking Centre Thanks to Bob Conder, K4RLC for setting this up.	Awards committee & Ray Burlingame-Goff, G4FON

The next few meeting of RARS will be held using Zoom at 7:30PM. Zoom is a conferencing application that runs on computers, tablets and phones. The meeting ID will be sent out to everyone via email.

Quick start guide for new Zoom users

https://support.zoom.us/hc/en-us/articles/360034967471-Quick-start-guide-for-new-users#h_b0c98dfa-d90f-486d-9617-71ab7b41a273

Zoom help center

<https://support.zoom.us/hc/en-us>

During all of our Zoom meetings please edit your name so your call is shown. Do a right click on your own image and choose rename. Add your call after your name. Thanks.

During the Zoom meetings please keep your microphone muted.

<https://www.rars.org>

RARS Birthdays

Bob	N4GEB	01/01
Ken	KK4YAF	01/01
Brian	K4BMW	01/01
Grady	AJ4YA	01/01
Kevin	KN4AAG	01/02
Barry	KK4NUN	01/03
Howard	KI4GNB	01/03
Chuck	K4HF	01/04
John	WB4DDK	01/04
Jerry	KE4TTS	01/04
Robert	KO4HAU	01/04
Jim	KC9PBW	01/05
Joe	KM4WRQ	01/06
John	N4YRD	01/08
Lauren	W0LD	01/09
Beth	KF4QMR	01/09
Ed	N4ESA	01/09
Jim	N4CAE	01/09
Richard	N1FUA	01/09
Paul	KE4TMN	01/10
Chris	K4CKB	01/11
Dan	WY3O	01/11
Evan	ZL2TFA	01/14
Bill	KI4BKF	01/15
Marko	KM4ZBT	01/16
Jeremiah	KC0WDZ	01/18
Marc	W4MPS	01/19
Dave	N4CVV	01/19
Joe	K4HEW	01/19
Ashby	KB5ZIH	01/20
Dave	N4DSF	01/21

*Everyone is
welcome!*



Every Thursday there is a “**Taco Thursday**” Lunch at the Taco Bell, 7036 Knightdale Blvd, Newbern Ave. (Business 64) in Knightdale. We eat outside so bring a chair and Join the Tailgate Party. Weather permitting.

Once in a while a **Free Hamfest** is held at the Pleasant Valley Shopping Center. To find the next date go to the entry for AB4OZ in QRZ.COM. Alan posts the information there.

RARS Birthdays continued

Tyler	KO4BZA	01/23
Cyndi	KD4ACW	01/30
Alan	AB4OZ	01/30
Tom	K2UCU	01/31

New Members

John Poplawski	WB4UFO
Bobby Huggert	KO4JTR
Larry Boggis	K4LBX

New Trustees for RARS club call signs

As you all know, due to his health issues Jeff Wittich, AC4ZO, asked that RARS find a new trustee for our club call signs. The FCC rules have recently changed and one person cannot be the trustee of more than one call. Since we have three calls that means we now need three trustees.

All call signs are renewed and are active. The new trustees are as follows:

W4DW = Tom Lewis, N4TL

N4RAL = Carl Davis, W8WZ

W4RNC = Mark Kilmer, KM4JRH

Thanks everyone and 73,

Carl W8WZ

Leaking batteries



These batteries were found in a Yaesu FRG-7700 that I checked for a friend.

Remember to take batteries out of anything that will be in storage.

Check all batteries once in a while.

73 Tom N4TL

RARS Classifieds

Copied from <https://www.rars.org/classifieds.php>

The items below were listed within the last 30 days on the RARS website.

Icom IC-718 HF Transceiver (used)

Posted January 3rd, 2021 by: KS9F

Contact: delsner@rense.com

I also have an older IC-718 that I no longer use and needs a new home.

Asking \$300.

email or call me (m) 919-623-0120

Xiegu G90 QRP radios (2) New In Box

Posted January 3rd, 2021 by: KS9F

Contact: delsner@rense.com

XYL says I have too many radios. I ended up buying an IC-705 for QRP and have 2 of the G90 radios that I never used.

HRO is selling them for \$425 and I am asking \$325 each.

email or call me (m) 919-623-0120

Misc Ham Radio Gear

Posted January 2nd, 2021 by: K4HF

Contact: k4hf@arrl.net

Kenwood H/T Alkaline Battery Cases, new, BT-11, BT-8, MBT-1, ea. \$0

Midland AM/FM/WX Alarm Radio A/c/Batt Powered - \$10

Radio Shack Atomic Radio Clock, Model 63-970, Batt/AC Powered - \$10

Heath HM-102 HF SWR/Pwr Meter, excel condx - \$25

RL Drake TV-1000 Low Pass Filter - \$10

RL Drake TV-300 HP High Pass Filter - \$10

Advance Electric & Relay Co. Coax Switch, 115VAC - \$20

Heath 4 Position Coax Switch - \$20

Trimm Vintage working Headphones - \$20

Netgear Dualband Model WNDR3400 Router - \$15

Contact me by E Mail, preferred, or (919) 872-6555 Thanks, Chuck

RARS Classifieds continued

signal generator an/usm323

Posted December 20th, 2020 by: AC2AS

Contact: sfgvoip@gmail.com

military version of the hewlett packard 8640b with "yellow" transit case good working condition gears good no cracks

\$300 or possible trade for other vintage electronic stuff

I also have a hp-8640b similar shape. If you already have one and need parts assistance (or trouble shooting assistance) I probably can help
also looking for hickok cardmatic tube tester parts sets etc
Steve

Misc ham radio equipment

Posted December 8th, 2020 by: K4RLC

Contact: k4rlcc@hotmail.com

For Sale Revised: (12/30/20)

- Bencher BY-2 Chrome Key –Exc Condx - lists for \$ 212; Sale for \$ 135
- Bencher BY-1 Black base key – Exc Condx - lists for \$ 172; Sale for \$ 100
- CW Morse Single lever Iambic Paddle – Exc Condx – Lists for \$60.00; Sale for \$30.00
- Assorted stuff: doorbells; Trailer hitch balls;
- MFJ-1918 Tripod 6 ft. List \$60.00; Sale for \$35.00
- Coleman Powerbase 5000 watt Generator: Briggs and Stratton engine. Free to a good home; hasn't been started in a while; under sundeck, but on wheeled cart so makes going uphill easier :-)
- CT 755 L Single Magnet Tension Brass Lever Paddle UR5CDX. Traveling, QRP. New, still in shipping box from Ukraine: \$100-

Email with questions: Bob K4RLC bconder@yahoo.com

RARS Board Meeting Minutes – November 17, 2020

These minutes have not been approved by the board.

Therefore they will be held until next month.

RARS Membership Meeting – December 8, 2020

The normal club meeting space remains closed, due to the COVID-19, "Stay at Home Order." The meeting was conducted using the Zoom video conferencing software.

The meeting was opened by President John Honeycutt (N8ZU), at 7:30. John requested that all attendees add their Callsign to their Zoom display name.

The Pledge of Allegiance was recited.

A quorum was present. October minutes were approved.

John offered the opportunity for new members and new licensee's and upgrades to introduce themselves.

Newly Licensed: Dana Lapple (KO4JYN), Stephen Haffly (KO4GOG) to General, John Iz-zo (KO4HLP to Extra

Officer Reports:

President: - John Honeycutt

Following tradition, there will be no RARS Board of Directors meeting in December.

RARS Membership Meeting – Continued

Vice President: - Tom Lewis

Next months meeting will be presented by a representative from Gigaparts on “Currently Available Handheld Transceivers.”

Exciter Editor: - Tom Lewis

Asked the group for any ideas or suggestions for future programs.

Treasurer: - Greg Seamster

Greg reviewed the budget and financial status. The club is up to 420 members. NCQP donations are coming in. The Zoom license has been renewed.

Youth Director: - Brantley West

Noted that December is “Youngsters On The Air (YOTA) Month”. Also, ARRL “Kids Day” will be Saturday, January 2nd. Brantley will send more info.

Director and Committee Reports:

Nomination Committee Chair: Chuck Littlewood (K4HF)

Introduction of new officers.

John expressed appreciation to the nominating committee and to the new officers, for acceptance of their positions.

Additional Announcements:

Alan Pittegoft (AB4OZ):

The next unofficial Hamfest will be held December 12th. Setup begins at 9:00 AM and the event will begin at 10:00. DBJ Radio and Electronics LLC will be attending. Their phone number for pre-event orders can be found on AB4OZ's QRZ page, along with the other details. A video on repeater etiquette, done by Gary Pearce (KN4AQ), has been posted on the

RARS Membership Meeting – Continued

RARS website under the “Repeater Op Guide” link.

Carl Davis (WZ0Q):

“Straight Key Night” will be held on New Year’s Eve.

Tonight's Program:

Tom Lewis introduced Bob Heil who conducted a presentation on his inventions, and how quality audio equipment and proper adjustment is essential to HAM radio communication.

John Honeycutt adjourned the meeting at 9:07 PM.

* Meeting minutes respectively submitted by Mark Kilmer (KM4JRH), Secretary, RARS.



What I Did During My COVID-19 Quarantine

Book Review of 'The Secret Wireless War'

First of all, I have two confessions to make to put this in perspective. Number One is that I'm undeniably an Anglophile, loving all things British/English, and particularly wartime exploits. Number Two is that I'm a WWII history buff, particularly regarding the RAF, but I do/have read about all combatants during the war.

Now, I have to provide a little background. As an adult 'ham radio' operator, I cut my teeth on crystal sets, repairing old AM radios and listening to shortwave broadcasts on a Hallicrafters 5R10 receiver given to me by one of my father's work associates. This gentleman served during the Korean Conflict and later and purchased the radio in the '50s. I received it in the early '60s and my father ran several loops of wire in our attic for the antenna. I spent many a night falling asleep listening to Cuba and other countries. I would wake up and hear nothing but 'fuzz' so I would turn it off and go back to sleep.

During my youth I developed a love of history and read all that was available in my HS library and from the county bookmobile during the summer. Therefore, it is safe to say that my interest in radio and history began about the same time and I'm still reading and operating today.

Fast forward a few years and I went to college, served in the Arkansas Air National Guard and USAFR and moved into the private sector of consulting engineering (HVAC, Plumbing and Fire Protection) from which I ultimately retired. Part of my USAF career was piloting tactical reconnaissance aircraft so I developed an awareness of necessary intelligence gathering activities and their importance to the planners and leaders at the time.

Okay, if you've stayed with me so far, let's get to the book review. Somewhere around Christmas time last year, I became aware of a book titled 'The Secret Wireless War' and subtitled 'The story of MI6 Communications 1939-1945.' This book was written by one of the individuals (Geoffrey Pidgeon) who was part of MI6's group of clandestine operators and suppliers of the sets used by operators all over Great Britain and the continent and even the Orient for a short period. So, I waded through over 350 pages of 8.5x11 format pages to learn about how these wireless operators helped to prosecute the war effort to defeat Germany.

Continued from previous page

I'm sure that most of you have heard of Bletchley Park and the decoding activities accomplished there by large numbers of women and a bunch of scientists including Alan Turing. Modern-day movies include *The Imitation Game*, *Enigma*, *Codebreaker*, *The Turing Enigma*, and *Bletchley Circle* (BBC production). The 'Enigma' machine was the German's code/cypher machine resembling a typewriter but actually constructed of several rotors with letters and numbers that could be configured with attached jumpers (much the same as old telephone connections when going through a switchboard). It required both the sender and receiver to have the same info regarding configuration of the machine. The folks at Bletchley Park are now famous for taking one of the captured Enigma machines and learning how to decipher message traffic between various service components of the German war powers.

What you may not be aware of is the extensive network of wireless operators that served, some in a pseudo-military role, some that were active military, and numerous civilians who worked at several locations throughout Great Britain to manufacture the transmitter sets used by operatives in many countries as the Allied forces sought to bring down the German menace. One of these locations was at Whaddon Hall, a very large estate approximately 10 miles away from Bletchley Park, that was taken over by the British government to provide manufacturing facilities for the wireless transmitters.

I mentioned MI6 only in the title of the book, but now it's time to discuss some of the various groups that were formed during the war to handle secret activities such as intelligence gathering, destructive activities and other such things in an effort to disrupt German military operations. MI5 and MI6 correspond to our FBI and CIA, but, during WWII, MI6 had a subgroup known as Section VIII that was comprised of military and civilian personnel that utilized the decrypts from Bletchley Park and transmitted encoded messages by CW (Morse Code) to the operatives throughout the continent and elsewhere. Two other groups, not the focus of this book, were the SOE (British Special Operations Executive) and the OSS (our Office of Strategic Services and forerunner of the CIA).

Another fact, which parallels actions taken in the US, is that wireless operators in Britain during the war were prohibited from operating unless they were Volunteer Interceptors or otherwise engaged in the activities I've been describing.

While this book focuses on the daily minutiae of producing wireless sets and stories of the operators, what I want to call our attention to as ham operators is the equipment. Most of the receivers used were

Continued from previous page

of US manufacture, made by names we seldom see anymore, such as Collins, Hallicrafters, National, Philco, etc. One of the ubiquitous receivers was the National HRO model and it was often paired with equipment manufactured at Whaddon Hall and satellite locations and called by 'Mark' numbers such as Mark III, Mark IV, Mark 33, etc. Some of these transmitters were parachuted into the continent and others were transported in diplomatic pouches since many of the operators were assigned to a British Embassy and became part of the Passport Control Office. There were a number of configurations built inside wooden boxes or other types of cases as appropriate for their intended use.

Another thing that I found of interest since, as ham operators, we learned about grids and plates and other things is that a lot of their nomenclature described components as 'valves' and I don't recall anything like that in my studies for ham radio exams. I'm sure that many of the tubes and 'valves' used in the sets mentioned are now mere relics of a bygone era and exist only in museums.

The book contains quite a lot of photographs of the equipment, both receivers and transmitters, as well as the various operators. I can tell you that you don't have to read all of this book to gain an appreciation of one of the many wartime activities that eventually helped the allied forces achieve victory in both theaters of the war.

Cheers and 73,

Richard Hall – K7RLH

CQ World Wide CW Contest

The CQ World Wide CW Contest is held on the last full weekend of November. It's a 48 hour contest. Chris, KL9A operated from TI7W in Costa Rica. He made 11,818 contacts using two radios. Its called SO2R, single operator two radios. Only one radio transmits at time. You can look at the details at this website. He averaged 246 contacts per hour.

[\[3830\] CQWW CW TI7W\(KL9A\) SOAB HP \(contesting.com\)](https://www.rars.org)

Logging

After the RARS membership meeting, a person asked what people use for their log.

My answer is a computer program on your PC. If you are getting started, try AC Log by N3FJP. It's not free but It is easy to use. If you decide to change to a different one later on, you can always transfer your log by exporting an ADIF file. Then importing it to the different one. You can also do like Carl, W8WZ and use paper logs. He uses the ones sold by the ARRL. For contesting, I use N1MM. After the contest, I export an ADIF file and import it to my main logging program. N1MM will also generate a [Cabrillo file](#) that you can send to whoever is running the contest. Even if you do not care about how well you did, send it in anyhow. The people running the contest like to see how many people participate. In addition, when they check logs, they will know your call is a valid call used during the contest.

You can look at Ham Radio Logging Software reviews on eHam.net and other ham websites. There are many and some are free.

<https://www.eham.net/reviews/view-category?id=27&sort=-activeReviewsCount>

You can read about N1MM at this website. <https://n1mmwp.hamdocs.com>

It is the best one out there for contesting, but can be overwhelming at first. If you want something simpler stay with [N3FJP](#).

Logbook of the world, LoTW, is a QSLing application run by the ARRL. It is not a traditional logging program that you keep at your station. N3FJP will transfer your contacts to LoTW and download your QSLs automatically. I use DXBase 2007, with that program, I upload an encrypted ADIF file to LoTW. Wait a while for it to be processed. Then download a file that has all the QSLs received. That file is used to update DXbase. DXBase is no longer a supported program but It is free now.

Logging software will keep track of how well you are doing for various awards. Awards like worked all states, WAS, or the number of countries you have worked, DXCC. Many programs will also keep track of how many grid squares you have worked and confirmed. Chasing Grid squares on six meters is the VUCC award. You can upload an ADIF file to WG7J's website and generate a map of your worked and confirmed grids, <http://wg7j.reinalda.net/gridmapper/gridmapper.php>.

Here is a link to a Logging presentation I did in 2014. [Computer Logging \(qsl.net\)](#)

There are contests on the air almost all weekends. You can see a list at this website.

<https://www.contestcalendar.com/weeklycont.php>

When using a Logging program make sure you backup your log to a USB memory **often**. Do not leave the USB memory plugged in to your computer. If a virus wipes out your files, it will not wipe out your backup.

73 Tom, N4TL

<https://www.rars.org>

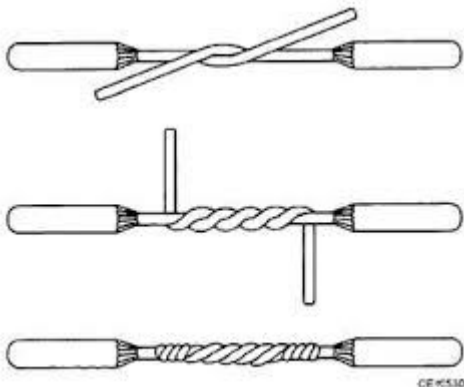
40 Meter Delta Loop

By: Carl Davis W8WZ

I just can't stop fiddling with my antennas. The other day my oldest Inverted V, which was up at 100 feet and fed with homemade 600-ohm open wire feedline finally met its demise. Wind blew some branches into it, they became tangled and the entire thing needed to come down to be repaired.

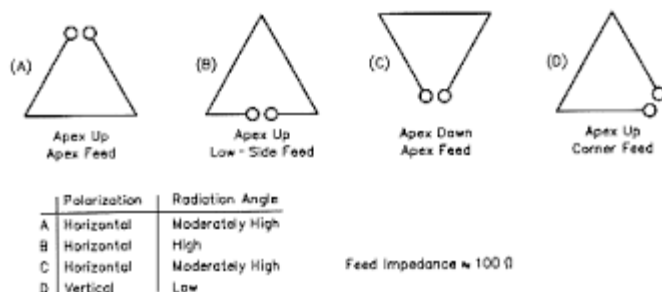
I have another inverted V at a decent elevation, so rather than put that antenna back up as it had been, I decided to make it into a 40-meter Delta Loop. Diversity being the spice of life, and all, I figured it would be good to have a Delta Loop to keep the Inverted V and Inverted L company.

The new antenna is hung as an apex up Delta loop. The apex hangs at an elevation of about 66 feet. It is fed at the apex with commercially made 450 ohm window line purchased from www.thewireman.com until it reaches 10 feet above the ground. Then that connects to what was left of my homemade 600-ohm open wire feedline, and that goes across the yard at an elevation of about 10 feet and into the ham shack. There is of course a small impedance bump where the two different feedlines come together. This is not ideal, but due to the low loss of ladder line, and the fact that a tuner will be used with this antenna system at all times, I don't have a problem with this imperfection. This small imperfection is worth the labor savings found in using the store bought window line and since the run of open wire across the yard was still in good shape, I didn't see the point in replacing it. So the splice works fine. The two are connected using the Western Union Splice.



40 Meter Delta Loop continued

The following image from W5SDC.net shows the different ways Delta Loops can be installed.



Mine is installed according to figure A, giving me horizontal polarization and a "Moderately high" radiation angle. This is the lowest radiation angle that can be achieved with an pex up Delta Loop using horizontal polarization.

The open wire feedline comes into the shack through a wood framed window. There it connects to a knife switch that grounds it when not in use. When in use, it switches into a 1:1 current balun. After that co-ax connects it to a switch that allows any of my boat anchor radios to access it. This radio can be accessed by my Johnson Viking 1, WW2 Paraset, Drake TR4CW, Heathkit HW101, Kenwood TS830 or a modern(ish) Icom 738. I can also patch other radios into it easily as desired.

Once the work was done, it was time for the fun. The antenna analyzer in the shack shows it resonant at about 6.8 Mhz. Again, since I will be using a tuner, and feedline loss is very low, I didn't see the need to make further adjustments. Using a tuner, I can use it on 40, 20, 15, and 10 meters. The antenna analyzer indicates that I can likely also use it on 6 meters, but I don't have a radio for that band attached to it to try.

Using the TS830, I called CQ on 40 meter CW during the afternoons of 27 and 28 December. I had nice rag chews with stations in FL, MA, RI, IL and PA. I got signal reports ranging from 559 to 599. That sounded like a pretty typical rag chew session for that band at that time of day. I was very happy.

I knew it "worked" but I wondered how it compared to my other new antenna, the end fed half wave from myantennas.com that I wrote an article about a couple of months ago. The "my antennas EFHW8010-2k". I have that antenna installed as an Inverted L with 80 feet of it

40 Meter Delta Loop continued

vertical and 50 feet of it horizontal going from the North to the south at an elevation of 80 feet. Since that antenna is connected to my Icom IC7300, I didn't think a receive test using the HW101 on the Delta Loop vs the 7300 on the Inverted L would be that fair. No offence to the engineers from Benton Harbor.

But, 100W is 100W. So a transmitting competition seemed very fair. This is easy to do thanks to www.reversebeacon.net RBN is a very cool computer network hooked up to receivers all over the world. If you call CQ using Morse Code, then go to that webpage and search for your call sign, it will show you the various receivers that heard you and give you a signal to noise ratio number.

So at 7:15 PM Eastern on 29 December 2020, I called CQ on 40 meters with the My Antennas End Fed Half Wave EFHW8010-2K Inverted L. Then, just seconds later, I called CQ on the same band using the Delta Loop. The results are below:

Station	Delta Loop	Inverted L
K07SS	16	19
AC0C-1	21	0
K9TM-4	14	0
VE6WZ	25	0
K3PA	20	25
AC0C-2	23	0
K07SS-7	12	15
K9IMM	20	0
K9TM-4	0	23
WA7LN W	0	15
OE9GHV /9	0	8
DL1AXX	0	7
WB6EE	0	24
WE9V	0	14
KP2RU M	0	17
N5RZ	0	26

As you can see both antennas did rather well. But I think there is a clear winner. From the stations that reported on both signals, the Inverted L was always louder. Also, other than a VE6, there are no DX re-

40 Meter Delta Loop continued

ports from the loop, where as there are a couple of Europeans reporting back on the Inverted L. That is not surprising as a horizontally polarized antenna with a "moderately high" radiation angle, isn't going to be great for the dx. The inverted L on the other hand, has a low angle of takeoff, for both its vertical and its horizontal fields. Also, the Inverted L does not require the use of a tuner for multiband use as the loop does.

Obviously, these tests are not very scientific, but they do represent two different wire antennas and their relative performance as observed over the course of a few days.

The delta loop is a fine antenna and I plan to leave it up for the foreseeable future. The main use for the boat anchors it serves is simple rag chewing and occasionally checking into a net, and this antenna will serve those needs very well. It will get a good work out for SKN as I tend to use the old rigs for that event. Future testing will involve seeing how it does listening to short wave broadcasts as I have been told loops are very good for that due to being quieter than the other types of antennas in my yard.

Weekly CW Slow Speed [con]Test

The new weekly slow speed CW contest that is sponsored by the K1USN club. It is called SST which stands for "Slow Speed Test". The maximum speed limit allowed is 20 WPM, Most operators are going much slower than that. It takes place every Sunday evening from 7 to 8 PM Eastern (in the spring when we have the time change again it will go to 8-9PM Eastern as the time is set by Zulu). The exchange is just RST Name and state. Full details can be found at <http://www.k1usn.com/sst.html>

00:00-01:00 UTC Mondays
which is 19:00-20:00 EST Sundays
(This is 7-8pm Eastern Standard Time)

Thanks to Carl, W8WZ, who submitted this to the Exciter.

What band is best?

New Hams on HF may wonder what antenna should I put up and what band should I be on? The screen captures below show propagation on various bands at 4PM December 30, 2020 and later on at 8PM. You can see a big difference between day and night propagation. The low bands 160 meter to 40 meters are mainly night time bands, but they can be used in daylight for local contacts. The upper bands 17 meters to 10 meters are more for daytime use. They can also be used in the night for local contacts.

160 meters is used at night during winter months.

6 meters has activity in the summer during the daytime. There also is some propagation in January.

Below are screen captures from the www.dxmaps.com website. They show that there is not much CW and SSB activity on 10 meters. .



10 meters at 4 PM



10 meters at 8 PM



FT8 on 10 meters at 4 PM

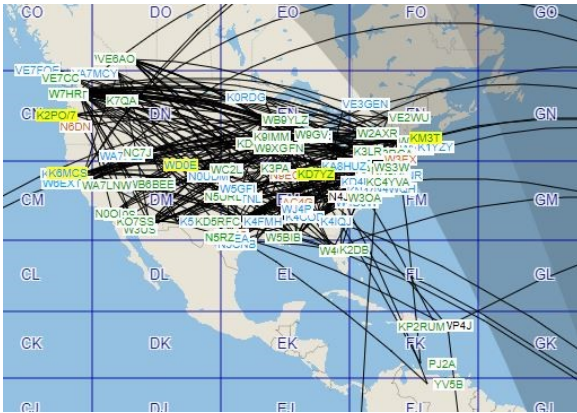
The screen capture on the left is from the psk reporter website.

<https://pskreporter.info/pskmap.html>

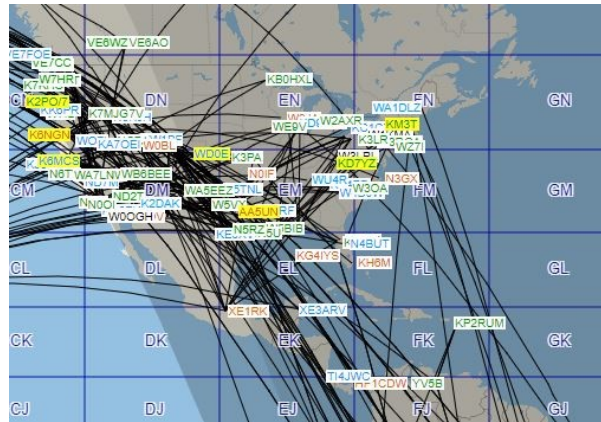
That site is used digital activity. It shows that there is FT8 activity on 10 meters. FT8 is a weak signal mode. When propagation is not good it may still get through. Remember that weak signal and low power are not the same thing. When propagation is poor, a station may be running 100 watts and the signal is still weak the receiving station.

What band should I be on? Continued

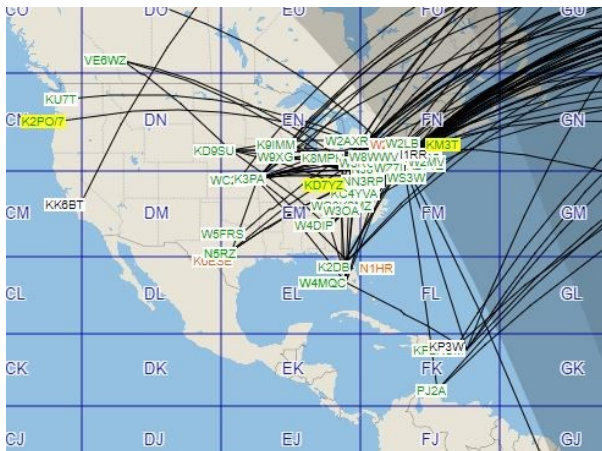
www.dxmaps.com screen captures December 30, 2020



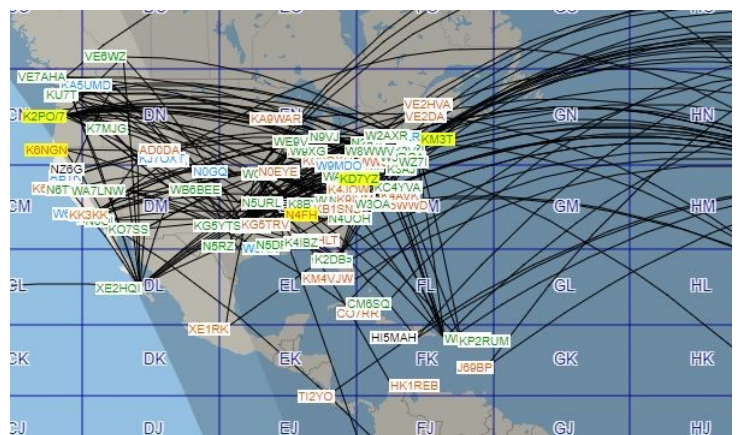
20 meters at 4 PM



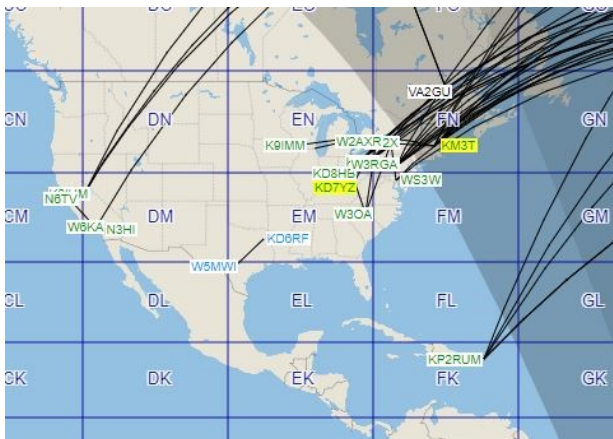
20 meters at 8 PM



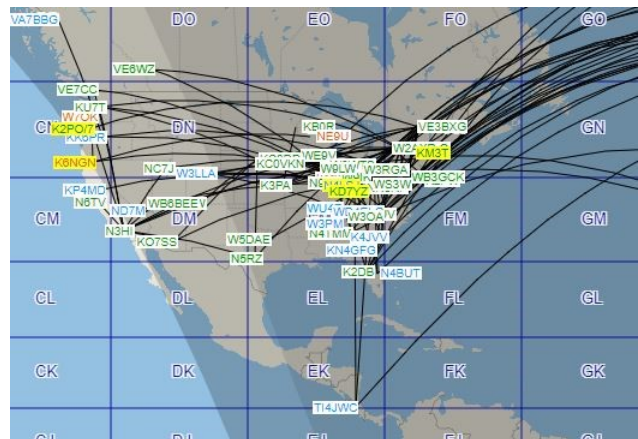
40 meters at 4 PM



40 meters at 8 PM



80 meters at 4 PM



80 meters at 8 PM

BlueCAT ICOM Module



Picture from <http://www.HamRadio.co.uk/>

What is it? It is an interface module that enables an Android phone to connect via Bluetooth and to use the Repeater Book app on the phone to control the radio. While this may seem unnecessary to some, it is of great use if you are using the radio while traveling or while mobile. It will save a lot of fumbling trying to tune the radio and then entering in the frequency offset and tone.

How it works: Plug the unit into the back of the radio. One plug goes into the Remote Control Jack for using CI-V commands. The DIN plug provides power from the Accessory socket. The radio needs to be set to use an automatic baud rate. The CI-V address for the IC-7100 has to be set to 88h. Other models use different addresses. The Bluetooth side has to be linked to the Repeater Book app. Once that is done, then the radio is set to VFO mode and not Memory mode. Once everything is verified, the app can be set to auto-connect when it is opened. Then one only needs to touch one of the entries on the screen of the Repeater Book app, and the radio changes to the proper frequency, offset, and tone for that repeater. If it is a digital repeater, it will change the mode to the proper mode also.

BlueCAT ICOM Module continued

The Repeater Book app has the ability to set various parameters for the repeaters one wishes to see listed. These range from 10 MHz to 24 GHz bands. Services include FM, Yaesu System Fusion, D-STAR, Echo-Link, DMR, and many others. The proper radio is selected in the app (in my case, ICOM 7100) and I have it set to Auto Connect.

What it doesn't do: It does not program the radio. The device does not set up memory functions, so if you wish to use them, they will still have to be programmed using the panel or the appropriate software and hardware interface.

My brief testing at home is sufficient to let me know that this will be a great addition to my radio, especially when I am traveling. It does not require network access, so if we are out of range of a cell tower and/or WiFi, I will still be able to use the app and the BlueCAT device to select repeaters for the area through which we are traveling. The device is purchased from Great Britain. Since a US purchase is not subject to V.A.T, the price is £49.90 plus £18 shipping for a total of £67.99. There is a £0.5 credit issued after the transaction is complete, but that is only usable at the supplier, Martin Lynch & Sons Ltd. (www.HamRadio.co.uk). Since the exchange rate varies, the actual US Dollar price will depend on what day your charge card company processes the charge.

Thanks to Stephen Haffly, KO4GOG for sending this to the Exciter.

Heathkit history

Click on the link below to go to the Electronic Design Magazine article

[Heathkit: An Employee's Look Back | Electronic Design](#)

A Morse code trainer and Keyer

Morserino-32 | morserino | W. Kraml OE1WKL

The new way to practice Morse code. New Firmware Version 3.x also allows the use of a straight key for all modes!. And you can transceive not just over LoRa, but also over WiFi (and hence across the Internet)!.

Video demonstrating Transceive mode over the Internet, via cq.morserino.info: www.morserino.info

Thanks to Bob Conder, K4RLC for this information.

<https://www.rars.org>